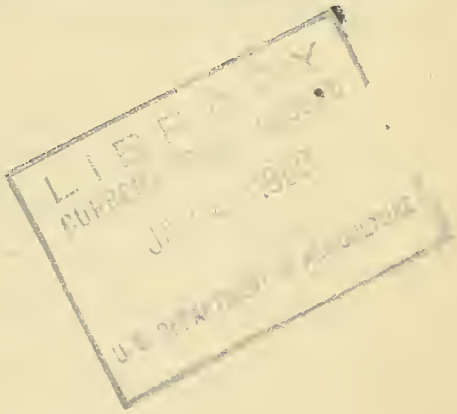
November 1949

MARKETING ACTIVITIES



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IN THIS ISSUE:

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By Ralph H. Moyer

They are flying at 14,000 feet. A crew of only two man the plane. Both wear oxygen masks just to make sure that their heads are clear. They have a clean-cut mathematical objective. It is one that ties their flight to the earth below. Upon the accuracy of their mission depends the difference of life and death to millions of acres of our country's soil.

But, don't get this crew wrong. It is not a pilot and a bombardier. It is a pilot and a photographer. They are not flying over an enemy terrain searching objectives for destruction. They are one of hundreds of crews that fly above their homeland taking pictures of the farms of America. The negatives, when developed, show the wheat fields, the oat fields, the cotton fields, the reservoirs and ponds, the irrigation ditches, the ranges and the farm homes of our country. They disclose ways and means of saving and making the best use of the land.

Nearly All U. S. in the Picture

Theirs is a mission of peace. No military photographers have yet achieved so vast a picture of this country's surface. The negatives are the most extensive panorama of the surface of the United States that has been achieved to date by any public or private agency. This work, carried on by the Production and Marketing Administration of the U. S. Department of Agriculture, has photographed from the air approximately seventy percent of the total area of this country, including ninety percent of the agricultural land. A considerable area has been rephotographed and there are now in PMA files aerial negatives for over 3,000,000 square miles.

The flight lines are two miles apart. The photographs are taken only on clear bright days during the period when the sun's altitude is at least 3 1/2 hours above the horizon. There are many other specifications that call for photographic scales, lenses, cameras tested by the Bureau of Standards, endlap in line of flight and sidelap between flight strips, and hundreds of other technical details. All of these are calculated to bring out the final accurate picture of the Nation's farms.

Aerial photography was agreed upon by the PMA as the most accurate and economical method of determining the extent of the farmers' participation in the Agricultural Conservation and other farm programs of the PMA. These programs, especially the quota and allotment programs, require accurate acreages of fields farmers have diverted from one crop to another and from soil depleting to soil conserving uses. Each field where these changes have been made must be measured to check these land use changes.

Air Survey Supplants Cruder Methods

Soon after the Agricultural Adjustment Act was passed in 1933, farmers elected county and community committees to administer the farm programs covered by that Act. Programs were set which called for the diversion of acreages devoted to wheat, corn, cotton and tobacco to other uses. This made it necessary that accurate measurements be made to determine the acreage in all fields on which these crops were grown. In order to obtain the first measurements required, the committeemen employed neighboring farmers to do the vast job of mapping the majority of the farms of the Nation. Practically all methods of measurement were used, many of which were of necessity crude and not always accurate. There was one thing common to all of these methods--they were expensive. In some cases the acreage of the fields on a farm was determined by surveying parties which was probably the most accurate and definitely the most expensive of all the methods used. In other cases, community committeemen measured the fields with chains or steel tapes. Another method was to tie a rag on a bicycle wheel and walk the wheel around each field to be measured, counting the revolutions each time the rag showed on top. The records from these field measurements were taken to the county office where they were computed and acreage determined. In many cases the equipment in the county office was not of the best and inexperienced help was used.

The final checking of the acreage requirements of the various programs then, as now, was the responsibility of the county committeeman. The community committeemen are elected by the farmers from their communities and the county committeemen were named by the elected farmer delegates from their counties. They were chosen for their qualifications as farmers and good citizens of the community to administer the farm programs at the grass roots. These farmers in most cases were not surveyors or trained engineers of any sort.

As early as 1934 county offices in charge of farm programs saw the need for speedy, low cost accurate measurements of fields. During that

year at least one county office made arrangements with a contractor for aerial photographic coverage. In 1935 a number of counties in several States were photographed from the air for farm program purposes and reports on the feasibility of measuring acreages from aerial photographs caused a larger number of counties and States to turn to this method during 1936.

At this time and for several years following, a number of people were dubious about the accuracy of the measurements. Queer things were happening. Fields which had contained twenty acres for ten or fifteen years were found to be nineteen or twenty-one or even twenty-two acre fields. Roads which were supposed to run due north and south or east and west were found to be slightly off course. Where a farmer had paid for one hundred and sixty acres, he found he had only one hundred and fifty-seven acres, while the one hundred and sixty acre farm across the road contained one hundred and sixty-three acres. Penalties for overplanting and, in some cases, a desire to prove the aerial photograph wrong, prompted the hiring of surveyors to check the acreages determined from aerial photographs. The fact that photographic coverage was later obtained for practically all of the agricultural land in the country testifies to the feasibility and accuracy of measuring acreages from aerial photographs.

Program Systematized in 1937

What had been, to a large degree, an experiment up to 1936 blossomed into a full-grown program in 1937. Changes were made in the specifications in order to secure a more usable product. State offices of the Agricultural Adjustment Administration hired engineers and prepared for the inspection and acceptance of photographic materials. Regional offices were established to secure more uniformity, prepare invitations to bidders, contractors and State AAA offices. Two laboratories were set up in Salt Lake City, Utah, and Washington, D. C.

Aerial photographic coverage had been secured for practically all of the agricultural land in the country prior to the start of World War II. Some of the counties photographed during the early days of the program had been rephotographed. Counties had been furnished new sets of ratioed enlargements to replace those worn by use. Many farmers had been furnished photographs of their farms for more careful planning of farm operations. Contractors were experienced and were delivering a much improved product. A uniform set of specifications had been approved for use by the Department of Agriculture. Personnel in the various AAA offices and laboratories were experienced, experience of the type which gave invaluable assistance to the military during World War II.

At the start of the war there were several contracts to be completed. No new contracts were let during the war. The nature of the farm programs did not require accurate acreage measurements and the military needed huge quantities of photographic materials. The aerial negatives secured by the AAA were used by the military in the training of its men and in selecting camp and plant sites. The two AAA laboratories were busily engaged in preparing mosaics and other types of photographic re-

productions for military use. Aerial and photo-index negatives covering military installations had to be classified and proper measures taken in the county and State AAA offices to safeguard reproductions from such negatives.

The end of the war brought peacetime agricultural adjustments. The need for adjusting acreages of certain commodities again became necessary and the interest in aerial photography as the means for securing acreage measurements was revived. Many changes had been made in farm land as a result of the war. Considerable new land was brought into production. Existing photographs were from four to ten years old. The program of re-photographing was under way.

Rephotographing Handled on Priority Basis

Today the need for accurate acreage measurements covers such crops as tobacco, peanuts, potatoes, cotton, and wheat. Corn, rice, and other crops may be in the picture soon. The demand for new photographs is great and is handled on a priority basis. State Committees of the Production and Marketing Administration, having all of the functions formerly assigned to the AAA, determine the order in which counties are to be re-photographed. The lists of the counties are worked into an invitation to bid. After approval, this invitation including many detailed technical specifications covering every phase of the operation is submitted to contractors. The bids are opened on a set date and the awards made.

The contractor is required to deliver the aerial negatives, photo-index negatives, one set of doubleweight, water-resisting, contact prints, one set of singleweight contact prints, three sets of photo-index sheets, and a line index for each county subproject.

All photographic materials are delivered to the PMA Eastern and Western Laboratories, depending on the location of the county subproject area. After inspection, the contractor is notified of acceptance or of any reflights or changes to be made in the materials delivered. Payment is made on a county subproject basis.

Ratioed enlargements at a scale of 660 feet to the inch are made in the PMA laboratories. The contact print scale is approximately 1700 feet to the inch. After the ratioed enlargements are prepared, they are carefully checked for scale and forwarded to the State PMA Office.

Photos Check Land Use in PMA Programs

The ratioed enlargements from the laboratories go to the State Committees and from them to the individual counties. The county and community committeemen then use these photographs to check land uses and crop acreage in accordance with the requirements of various programs administered by PMA. On the ratioed enlargements at a scale of 1 inch equals 660 feet, the areas of the individual farms and the permanent boundaries of fields in each farm are delineated in the county office. These photographs are then used as intimate maps of the county and community as well as intimate maps of the individual farm. The areas of individual fields

are secured in the county office by the use of planimeters and sometimes in the case of rectangular fields by scaling. The scale of 1 inch equals 660 feet (8 inches to 1 mile) was determined as a convenient scale to use as it converts readily into rods, the measurement most commonly used in determining land areas. At this scale 1 square inch equals 10 acres.

In the county office the area which should be used to planimeter fields is determined for each photograph and indicated by lines dividing the overlapping areas of adjoining photographs. The photograph which is needed for any individual farm is determined by consulting the photo index. These photo indexes are made up on a county basis to a scale of approximately either 1 inch to the mile or 2 inches to the mile. In areas which are sectionalized, the township and section lines are often placed on the photo index to aid in determining the photograph needed to cover any particular area. Section lines are also often indicated on the individual photographs as an aid to locating any parcels of land according to its legal description. The records for each farm in the county office also refer to the number of the individual photograph or photographs on which such a farm appears so that if it is necessary to consult the photograph it can readily be removed from the files.

With these photographs in the hands of a county committeeman, he has a detailed picture of his entire county as well as each individual farm. And each farmer has available to him at a small cost an overall photograph of his own farm with fields and boundaries clearly marked which can be used by him in improving his own land. And the Nation has its photograph to better show its needs and vast resources.

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BURLEY CONSUMPTION LEVELING OFF

Domestic use of Burley tobacco plus exports has been relatively stable at about 525 million pounds a year during the past three years, according to Dr. Dana G. Card, economist at the Agricultural Experiment Station of the University of Kentucky. This is despite the fact that its use has increased about two-thirds since before World War II. The Kentucky economist reports that production has outrun the use of Burley, and in five of the last six years more Burley has been grown than was used. Stocks now are the highest on record, with stocks of tobacco on hand plus the present crop estimated at 2.9 times the annual use of Burley.

When the total supply gets above three times the yearly use, "then markets seem to get into difficulty," Dr. Card points out. Normally, the supply of tobacco is two and a half to three times the annual consumption.

"If we could be sure that cigarette smoking and disappearance of Burley tobacco would stay up to where it is now, stocks might not be excessive, even though production has been running ahead of disappearance," Dr. Card asserted. He stated that a good deal depends on business activity, for which he called the outlook "relatively good" for 1950.

Egg Quality Is Elusive

By Hermon I. Miller

One out of every three eggs has dropped below Grade A quality by the time farmers in 13 Midwestern States sell their eggs to country stores and other first receivers.

More than two out of five of these eggs have lost their Grade A status before they reach the carlot assembler about 2 days later--in a journey to market that often takes 2 or 3 weeks in all.

These two facts stand out in a recent report of a study made by the U. S. Department of Agriculture and the agricultural experiment stations of the 13 Midwestern States that produce about half the country's egg supply. The study was made with Research and Marketing Act funds.

Egg producers and handlers have known all along that egg quality hits the skids as they move to market. But until this study was made, there had been no broad-scale attempt to find out just how much the deterioration amounted to at any one point along the line.

First Two Marketing Legs Studied

In this study, the purpose in particular was to discover the quality of eggs when they reached the first receiver (the country buyer) and when they reached the second receiver (the carlot assembler), and to examine certain marketing factors that helped to cause the decline during the trip from the nest as far as the second receiver. In other studies already begun, other stations along the route from producer to consumer will be investigated.

The present study was based on data from more than 1,000 buying and assembling plants. From each of 7,200 cases of eggs, 100-egg lots were graded when they reached the country stores and other country buying stations. Two-thirds of them got an A rating (meaning they were "A" quality or better). For the three seasons studied, 65.4 percent rated A in spring, 64.2 percent in summer, 71.6 percent in the fall. "Stains" and "dirties" found among those eggs in the spring amounted to 10.9 percent, in summer to 11.1 percent, and in the fall to 10.3 percent--average for all three seasons, 10.8 percent.

Variation was wide in the quality of eggs sold by farmers in the same area on the same day. Of two 100-egg samples that reached a country buying station on the same day, for example, one sample showed 90 percent A's and the other none.

Egg quality was compared according to whether the eggs had been sold on a graded or ungraded basis. Eggs selling on a graded basis averaged about 70 percent A's; those selling ungraded, about 60 percent. In spring, 55 percent were sold on a graded basis; summer, 59 percent; fall, 73 percent.

For the same three seasons, stained and dirty eggs that were sold ungraded averaged 17 percent; those sold graded averaged 7 percent. Better quality and fewer stained and dirty eggs were found among lots bought by grade. Apparently farmers who sell on a graded basis take better care of their eggs and clean them before marketing. As a result there is a higher percentage of clean eggs in marketing channels.

Another indication from the study is that the greater the number of eggs per producer delivery, the larger will be the percentage of A-quality eggs. If this is so, the reason may be that large producers take better care of their eggs than small producers.

The following table shows how much egg quality declined between the country buyer and the carlot assembler, according to the study:

Change in number of A-quality eggs and checks between country buyer and central assembler in the Midwestern area, 1948:

Season	A-quality eggs at country buyer's	A-quality eggs at central assembler's	Decrease in number of A-quality eggs	Checks at country buyer's	Checks at assembler's	Increase in checks
			- - - -Percent- - - -			
Spring	72.2	62.3	9.9	4.3	5.0	0.7
Summer	68.7	58.9	9.8	4.7	5.7	1.0
Fall	80.0	74.8	5.2	3.6	4.2	0.6

In spring and summer, the table indicates, about 15 percent of the A's dropped to lower levels of quality. In the fall the decline, though not so great, was considerable. On the basis of these figures, it is clear that in any attempt to reduce the deterioration of egg quality during marketing channels, a great deal of attention must be paid to the care eggs receive at country buying stations.

A second way of measuring quality decline--a point system--was devised for use in the study. One point represented a quality decline of 1 egg by 1 grade in each 100 eggs tested. A 10 point decline, for example, might indicate a decline of 10 eggs by 1 grade each, or of 5 eggs by 2 grades each, and so on. Using this system, it was found that on the trip from the country buyer and the carlot assembler--lasting about 2 days on the average--13.1 eggs out of every 100 dropped 1 grade in

quality. In terms of prices current when these eggs reached country buying stations, the quality drop meant a loss of about 28 cents a case--in about 2 days' time.

Egg lots were sorted according to how many days elapsed between the grading at the country buying station and the grading at the carlot assembling plant. In each of the three seasons studied, point values went down as the number of days between gradings increased. Time between gradings appeared to be the most important factor analyzed.

In general, the higher the temperature of the eggs when they left the country buyer, the greater was the rate of decline in interior quality.

Full Report Available

The experiment stations of the following States cooperated in the study: Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. USDA agencies cooperating in the study were the Poultry Branch of the Production and Marketing Administration, the Farm Credit Administration, and the Bureau of Agricultural Economics. The report of this study titled "Changes in Egg Quality During Marketing," was published at the Michigan State College Agricultural Experiment Station. A brief, popular summary of the study, entitled "Deterioration of Egg Quality During Marketing," is being printed now by the Production and Marketing Administration. It will be available at the Information Branch, Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

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USDA TO ENCOURAGE EXPORT PROGRAMS OF ORANGES, APPLES AND WINTER PEARS

A program to encourage exports of oranges from the United States to European countries eligible to receive aid under the Foreign Assistance Act of 1948 has been announced by USDA's Production and Marketing Administration. The program will provide for payments up to one-half of the f.a.s. U. S. port price (computed before deduction of such payment). A near-record production of oranges is in prospect this season, and the program will assist in marketing the crop. Announcements containing full details of this program are being mailed to all known shippers and processors of citrus fruit.

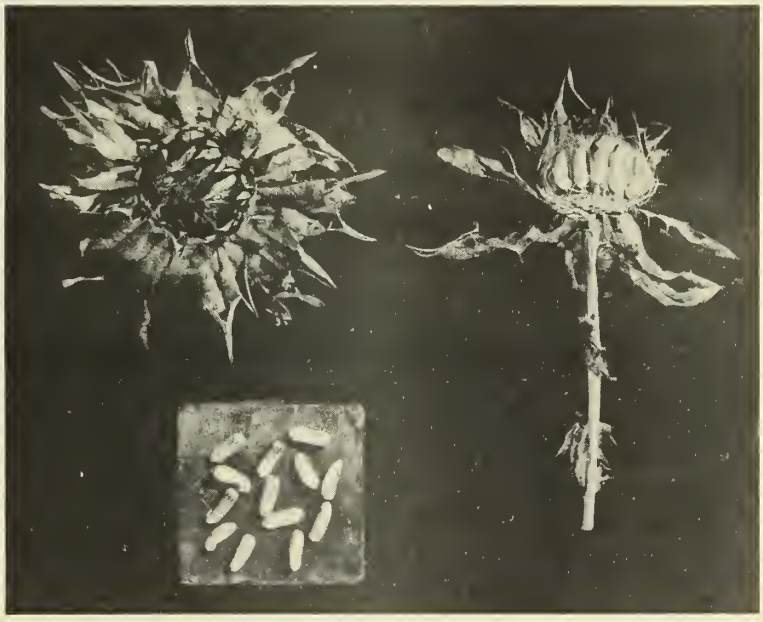
USDA has also amplified its export payment program for apples and winter pears, originally announced October 13, 1949, to include most of the dependencies of countries participating in the European Recovery Program. Such areas had previously been ineligible. A complete list of all countries, territories, and areas approved under this program is available to exporters and may be obtained from the Production and Marketing Administration, Department of Agriculture, Washington 25, D. C. or from its field offices in Portland, Oregon, and Sacramento, California.

Safflower - Newest Old Crop

By Archie R. Sabin

In 1949 safflower was grown for the first time on a commercial scale in the United States when nearly 40,000 acres were harvested. This immigrant from the dry land areas of India, Turkestan, and Africa shows distinct promise of becoming a solid American citizen.

Safflower, a thistle-like plant, was cultivated for several thousand years as source of a dye obtained from the flower. Seeds of the plant have been found in the tombs of the Pharaohs. Today's interest in safflower, however, is in the oil and meal derived from the seed. Although the oil is used extensively in India for edible purposes, and for soap, the principal use of this year's production in the United States will be as a drying oil in protective coatings. Safflower seed oil is considered equal to linseed oil for many purposes and superior in some. Of special significance is the fact that paint made with safflower oil is resistant to yellowing, a common characteristic of paints made with linseed oil.



Safflower seeds are slightly larger than wheat kernels. Each head may bear from 20 to 100 seeds.

Safflower Resists Drought

The sudden commercial interest in safflower comes from several sources. Over two decades of experimental production show it to be well adapted to the semi-arid areas of the West where wheat and flax have long been important crops. Faced with reduced wheat acreage and substantially lower flax prices, many farmers are looking to safflower to help fill the gap. Moreover, newly developed varieties having higher oil content are now available for planting. Under average conditions safflower should compare favorably with wheat as a cash crop. In addition, the plant is exceptionally drought resistant and often yields enough to justify harvesting under conditions that make wheat a total failure.

In 1949 several thousand acres of safflower were planted on land where winter wheat seeded in the fall of 1948 had winterkilled. This possibility of making a crop on acreage otherwise lost is also a point of interest to farmers, since, for example, the 10-year, 1936-45, average abandonment of wheat acreage was 17 percent in Nebraska and 23 percent in Colorado. On dry land safflower yields about 750 lbs. per acre on the average while irrigated fields can be expected to produce 2,000 lbs. or more per acre.

Progressive farmers in the Western Great Plains have long felt the need for a new crop to include in their rotation plans. The cost of producing safflower approximates that for wheat since planting and harvesting machinery can be used interchangeably. Because planting seasons differ for these crops, and safflower ripens later in the fall, fuller utilization of the farmer's machines and more even distribution of his time are permitted.

Despite coarse stems, safflower can be harvested readily with combines.

Meal Valuable Stock Feed

Another important consideration strengthening the position of safflower is that the meal provides a protein supplement for livestock in areas which heretofore have had to ship in meal at considerable expense from hundreds of miles away. Experiments indicate that safflower meal is comparable in feeding value to soybean meal when fed on an equal basis. When oil is extracted without removing the hulls, protein content of the oil seed cake from newer varieties now being recommended is about 25 percent.

While the ability of safflower to compete economically with other crops in the future cannot well be forecast, it is possible to compare returns from the 1949 crop. Colorado farmers are receiving 4 cents per pound for crushing stock seed. At this rate farmers' average gross return is $30 per acre on dry land and $80 per acre under irrigation. Comparison with other crops requiring similar cultural practices is shown in the following table:

Gross returns per acre for selected crops, Colorado, 1949

Crop	Yield per acre		Price 1/ received by farmers	Gross return per acre	
	Dry Land	Irrigation		Dry Land	Irrigation
			Dollars	Dollars	Dollars
Safflower, lb.	750	2,000	.04	30.00	80.00
Spring wheat, bu.	20	32	1.82	35.40	58.24
Barley, bu.	25	40	.86	21.50	34.40
Beans, lb.	400	1,500	.06	24.00	90.00

1/ Prices are as at mid-September 1949

Seed prices in future years will be influenced largely by the price of oil. Safflower oil is currently being sold at prices below linseed, but substantially above soybean oils. As the present price is largely introductory it is difficult to predict the price pattern in which future production will fall. In Australia safflower oil normally sells at a premium over linseed oil. Whatever the eventual relationship to linseed oil prices, however, it appears that safflower oil in the new few years, at least, will find a ready market at prices higher than for soybean oil.

Estimated output of oil from the 1949 safflower crop will be over 8,000,000 pounds, equal to about 1 percent of the linseed oil production. The only commercial acreage in 1949 was grown in Colorado, the Nebraska Panhandle, and some small acreage in Wyoming. One plant processing safflower exclusively is operating in Colorado while experimental lots are being processed in California and elsewhere.

Expanded Production Indicated

Present indications point to a safflower acreage in 1950 of more than double the 1949 crop. Expansion of existing facilities and the erection of one or more additional processing plants is planned. In California, where safflower acreage was negligible in 1949, commercial scale production will be attained in 1950. Several oil companies, seeking to supplement their present oilseed sources, are arranging to contract for thousands of acres of safflower. Interest among individual California farmers also is strong and a number have visited the Colorado-Nebraska area to observe the crop and to buy certified or proved seed. Development of those strains which produce seeds of highest oil content will help strengthen the comparative position of safflower in American agriculture.

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PRIVATE TRADE CHANNELS TO HANDLE MORE EXPORTS OF WHEAT, FLAX, AND SOYBEANS

With few exceptions, all countries are permitted as of November 1 to procure supplies of wheat, flax and soybeans in the United States from private suppliers, Secretary of Agriculture Charles F. Brannan has announced. This action has opened the way for exports of these commodities through the normal channels of trade on the same basis which is now in effect with respect to the export of flour and whole grains other than wheat. Countries and areas excepted are the occupied zones in Germany and Japan, and Korea, Austria, Trieste, Greece and China. Government operations on shipments to these special areas are still essential.

For all other countries, arrangements can be made to secure supplies of wheat, flax and soybeans (as well as coarse grains and flour) directly from private United States exporters, if the importing countries indicate that it is their preference to handle imports through private trade channels. This action is in line with the Department's policy of returning exports to private channels of trade as rapidly as it is practicable to do so.

New Beef Grade Proposed

By J. C. Pierce

Both consumers and producers should benefit directly if the recent USDA proposal for a new beef grade is adopted.

The proposal is to divide the present Commercial grade into two grades on the basis of maturity. One of the divisions would retain the name Commercial while the other would be identified by a new name--tentatively designated as Regular.

Beef identified by the new grade name Regular would meet the needs of those who prefer relatively tender beef carrying less fat than the Good grade. Similarly, the new Commercial grade would appeal to those who place more emphasis on meat with a liberal amount of fat and a more pronounced beef flavor, than on natural tenderness.

Beef having these characteristics would continue as Commercial under the proposed division.

Present Commercial Grade Too Wide in Scope

Most of the beef sold in retail stores qualifies for one of the three present grades--Choice, Good, or Commercial. The Choice and Good grades, because of their uniform, dependable quality, have become firmly established and are in daily demand by a vast segment of meat shoppers. However, beef which is currently eligible for the existing Commercial grade is so variable in its characteristics that this grade stamp has proved to be of rather limited use as a consumer guide for buying. Therefore, most of the beef which is eligible for this grade is at the present time either sold ungraded or identified by private brands.

Beef from young animals carrying considerably less finish such as this would be the proposed Regular.

Commercial Grade Variability Related to Age of Cattle

Variability of the Commercial grade results from the wide range in age of cattle permitted within the grade. With no limitation in age as in both Choice and Good grades, Commercial now includes carcasses from steers, heifers, and cows

varying from the youngest to the oldest animals sold as fresh beef. Because of this great variation in degree of maturity, beef of this grade varies widely in fatness, texture, and natural tenderness.

Some of this beef comes from relatively immature cattle similar in age to those in the Good grade. Beef from these animals would constitute the proposed Regular grade. Its characteristics are red, porous bones, fine texture, only a very slight amount of fat intermingled within the lean, and a thin outside covering of fat. In contrast, the beef from the fully matured animals in the Commercial grade shows a hard, white, flinty bone, rather coarse textured meat with a liberal intermingling of fat within the lean, and an outside covering of fat varying from moderate to very thick. Under the proposal, this beef will retain its Commercial grade.

Proposed Grade Division Affects Only Commercial Grade

Since the proposal for establishing a new grade designation involves only beef presently included in the Commercial grade, it does not place another grade between the Good and Commercial, but rather is a vertical division of the Commercial grade on the basis of maturity. Immature carcasses having the conformation, quality, and finish presently required for the Commercial grade would be graded Regular. Those which have reached maturity as indicated by hardness of bone and coarse texture would continue to be graded Commercial. Those carcasses in all stages of maturity which do not meet the present requirements for Commercial grade would be graded no higher than Utility.

Grade Change Will be Beneficial to Producer

The proposed grade change will prove highly beneficial to the producer. Young cattle that do not qualify for the Good grade would sell on their own merit and not be penalized by carrying the same carcass grade as mature cows. At the present time young slaughter cattle that fail to grade Good sell at a sharp discount. Those meat processors and retailers who do not have well-established private brands and rely on Federal grades are now limiting largely their purchase of young cattle to those that will grade Good and Choice. However, if the proposed grade revisions are adopted, this segment of the meat trade may well become active competitors for the Regular grade carcasses thereby opening a new outlet to producers.

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TYPE "O" FOOT-AND-MOUTH VIRUS IDENTIFIED IN MEXICAN OUTBREAK

The recent outbreak of active infection of foot-and-mouth disease in Chicoloapan, State of Mexico, reported on October 24, was caused by a virus type which had not been present before in the current Mexican plague, USDA has announced. The infection since 1946 had been entirely from the foot-and-mouth disease virus Type "A". The new outbreak was caused by Type "O" virus according to identification tests made in Mexico and confirmed at the Foot-and-Mouth Disease Research Institute in Pirbright, England.

The Latest on Frozen Food Marketing

By James A. Mixon

"If frozen foods are to compete with other products in tapping the mass market, production must be large enough and the cost low enough that the frozen product can be sold to the consumer at a price which she is willing to pay, and at the same time, allow for reasonable returns to the producer and to those engaged in the essential marketing services."

This key sentence, taken from the conclusions of a new report, "MARKETING FROZEN FOODS--FACILITIES AND METHODS," symbolizes its forthright appraisal of this new giant in the marketing field--the frozen food industry. The comprehensive 175 page report has been prepared by the Marketing Facilities Branch of the Production and Marketing Administration after three years' study, and covers every conceivable adventure of frozen food in its complicated journey from freezing plants to display cabinets in your neighborhood stores.

Problems Analyzed

In detail the publication describes the packing, transporting, storing, distributing, and merchandising of a wide range of food items. Equally important are the constructive analyses of the many specific forzen food distribution and facility problems, and the recommendations and suggestions for further research to solve them.

In addition to outlining the well-known advantages of frozen foods, the report logically surveys the industry's promise of bringing many efficiencies to the marketing of perishable farm products. In processing for freezing a greater proportion of the inedible parts of products are left at the point of production and thus substantial savings in handling and transportation are effected. Longer storage life can be achieved with freezing, and when properly performed, quality is captured at its peak. Important economically is the fact that freezing plants provide a market outlet to areas ideally suited to producing certain perishable crops which otherwise could not compete successfully at distant city markets.

One of the basic problems of the industry, according to the report, is the shortage of freezer storage in retail stores and homes. Another is the need for a low cost method of transportation capable of holding frozen foods at zero degrees on long hauls as well as delivery transportation that will maintain proper temperatures on the short hauls to retailers.

Shortage in Storage Space Key Problem

The shortage of freezer storage is pointed up in the problems of the wholesaler, upon whom the burden is considerably greater in this industry than in other food distribution systems. Wholesalers of nonfrozen foods deliver to retailers and institutions almost entirely in case lots. With frozen food, however, this job is considerably more complicated. The wholesaler delivers many of his orders in less than case lots because retailers generally have no freezer storage space other than the retail frozen food cabinets. Usually these retail cabinets are shared by several frozen food wholesalers. So, deliveries must be made more frequently than deliveries by conventional grocery suppliers.

In addition some wholesalers are eager to arrange the frozen foods in the display cabinets, apply retail price marks on the packages, and perform other services usually associated with retailing. These practices tend to increase the marketing charges of frozen foods. However, as the retail volume of frozen foods becomes larger, wholesale distribution practices can be streamlined and made more efficient and, accordingly, the costs of marketing frozen foods should become lower.

Industry Expansion Related to Number of Home Freezers

In summarizing the consumer end of frozen food marketing, the keys to expansion, points out the report, will be found in more freezer storage space in homes, extensive consumer education, and of course lower prices. Although more than a million home freezers are in use, this represents less than 4 percent of the Nation's families, so the public generally lacks familiarity with home storage of frozen foods. While most home refrigerators can hold several frozen items, the economies of quantity buying will be difficult to achieve until more homes are equipped with freezers. Thus, it appears that expansion of the frozen food industry will depend largely upon the increase in the use of home freezer facilities.

Locker plants are a partial answer to the food buyer's need for freezer storage space. These plants are in a good position to serve rural and city owners of home freezers by supplying meat and commercially frozen foods at near wholesale prices.

In compiling the report over 350 wholesale distributors were surveyed in 50 cities of key importance as terminal food markets. About 300 retail stores in all parts of the country were visited to study their use of the various types of frozen food display and storage cabinets. Finally, direct contact was made with many representative firms of the more than 1500 now engaged in the expanding industry.

1948-49 Food Exports Set Record

Record food exports of more than 22.1 million tons, almost 15 percent higher than last year's record of 19.3 million tons, were set in the 1948-49 fiscal year. At the same time civilian per capita consumption continued 10 percent above the 1935-39 average, though somewhat below the level of the three preceding years. These highlight figures are taken from the summary of distribution of United States food supplies in the year 1948-49, prepared by the Bureau of Agricultural Economics, the Production and Marketing Administration and the Office of Foreign Agricultural Relations.

A number of factors apparently combined to bring about the decline in per capita consumption. Domestic demand for food was less strong as a result of slight decreases in total economic activity, employment, and flow of income to consumers. A slightly larger proportion of consumer income was spent on major consumer durable goods--particularly automobiles--and consumer services, including rent, rather than on such items as food.

On a physical quantity basis, United States civilians took 82.3 percent of the total amount of United States food distributed. Exports (including military shipments of food to occupied areas) accounted for 16.2 percent, and U. S. military services took 1.1 percent for troops stationed at home and abroad, and the noncontiguous territories of the United States received 0.4 percent.

Wheat Largest Food Export

Grains, excluding rice, accounted for about 80 percent of the total export tonnage. Wheat and wheat products, amounting to 61 percent of total export tonnage, again represented the largest food item shipped abroad. The summary of the food exports from the United States by major groups for the prewar period 1935-39 and the four postwar years follows:

Period	Wheat and wheat products (grain equiv.)	Other grains (grain equiv. excluding rice)	Fats and oils	Meats (carcass equiv.)	Dairy products (product weight)	Other foods	Total food exports
	1,000 long tons	1,000 long tons	1,000 long tons	1,000 long tons	1,000 long tons	1,000 long tons	1,000 long tons
Average:							
1935-39:	1,366	1,335	87	55	17	1,363	4,223
1945-46:	10,520	1,308	315	614	792	3,850	17,399
1946-47:	10,670	4,165	227	181	494	3,436	19,173
1947-48:	13,013	2,231	251	68	459	3,319	19,341
1948-49:	13,430	4,265	397	33	382	3,600	22,107

Highlights - Agricultural Act of 1949

The Agricultural Act of 1949 makes price support mandatory for the "basic" commodities--corn, cotton, wheat, rice, tobacco, and peanuts, and for certain designated nonbasic commodities--wool, mohair, tung nuts, honey, Irish potatoes, milk, butterfat, and the products of milk and butterfat. Price support is permissive for other nonbasic commodities at the discretion of the Secretary of Agriculture.

The new Act becomes effective for price support operations on crops for which the marketing year or season begins on or after January 1,1950. The Secretary of Agriculture may elect to make provisions of the Act effective earlier if levels of support on programs begun or announced are not reduced.

Basic Commodities

Price support is mandatory for corn, cotton, wheat, rice and peanuts to cooperators (producers who do not knowingly exceed their acreage allotments) if they do not disapprove marketing quotas, and if acreage allotments or marketing quotas are in effect:

(a) in 1950, at 90 percent of parity

(b) in 1951, at not more than 90 percent of parity nor less than 80 percent of parity or a level between 80 and 90 percent of parity as called for by "sliding scales" based on the relationship of total supply to normal supply

(c) and, in 1952 and after at not more than 90 percent as called for by the "sliding scales."

If producers disapprove marketing quotas price support would be made available to producers who comply with acreage allotments at 50 percent of parity in 1950 and after.

"Sliding Scales" Invoked

In 1950 and 1951, if producers have not disapproved marketing quotas and if no acreage allotments or marketing quotas are in effect, price support is mandatory at not more than 90 percent of parity nor less than the level of support between 75 and 90 percent of parity, nor less than the level of support between 75 and 90 percent of parity called for by the "sliding scales."

Price support for cooperators outside the commercial corn producing area is 75 percent of the level of price support to cooperators in the commercial corn producing area.

Price support for tobacco in 1950 and after is mandatory at 90 percent of parity to cooperators if marketing quotas are in effect, except that fire-cured tobaccos will be supported at 75 percent of the burley rate; and dark air-cured tobaccos, including Virginia sun-cured tobacco will be supported at 66 2/3 percent of the burley rate. No support will be available if producers disapprove marketing quotas.

Price support for noncooperators is discretionary with the Secretary of Agriculture at a level not in excess of the level for cooperators.

For the years 1950-53 inclusive, support prices for basic commodities will be based on parity prices calculated by the "old" or "new" parity formulas, whichever results in the higher price. Beginning in 1954, only the new formula will be used.

Designated Nonbasic Commodities

Price support for wool, including mohair, is at the level between 60 and 90 percent of parity based on the "new formula" as the Secretary determines is necessary to encourage an annual production of approximately 360 million pounds of shorn wool.

Support for tung nuts, honey, and Irish potatoes is between 60 and 90 percent of parity as calculated on the "new" formula.

Whole milk, butterfat, and the products of such commodities are to be supported at such levels between 75 and 90 percent of parity as will assure an adequate supply. Price support is to be provided through loans on, or purchase of, the products of milk and butterfat.

Other Nonbasic Agricultural Commodities

Price support for nonbasic agricultural commodities, other than the designated ones, is permissive at any level not in excess of 90 percent of parity. In determining whether support will be provided for any nonbasic commodity, the following factors are to be taken into account: (1) Supply of commodity in relation to demand; (2) price levels at which other commodities are being supported; (3) availability of funds; (4) perishability of commodity; (5) importance of commodity to agriculture and the national economy; (6) ability to dispose of stocks acquired; (7) need for offsetting temporary loss of export markets; and (8) ability and willingness of producers to keep supplies in line with demand.

Price support is to be made available, so far as feasible, on any storable nonbasic commodity for which a marketing quota or marketing agreement or order is in effect. Support level cannot be in excess of 90 percent of parity and not less than the level between 75 and 90 percent called for by the "sliding scales" unless the Secretary determines a lower level to be desirable.

Other Price Provisions

Under the Agriculture Act of 1949 the Secretary of Agriculture is given the right to condition eligibility of producers for price support upon compliance with acreage allotments, production goals, and marketing practices, including marketing quotas when authorized by law. A statement in the House Conference Report makes it clear that this provision includes authority to require the use of marketing agreements and orders on potatoes and other nonbasic commodities in areas specified by the Secretary as a condition of eligibility for price support.

In the interest of national security or of national welfare the Secretary of Agriculture may authorize after a public hearing that price supports may be made at a level in excess of 90 percent of parity to prevent or alleviate a shortage of a commodity or to increase or maintain the production of a commodity.

Sales and Other Dispositions

The Secretary of Agriculture and the Commodity Credit Corporation may make available to the Munitions Board or any other Federal agency any food commodities which are in danger of deterioration or spoilage before they can be disposed of in normal domestic channels without impairing the price support program, for use in making payments for commodities not produced in the United States. Any commodities not disposed of as outlined above may be made available free of cost at the point of storage in accordance with the following priorities: (1) to school lunch programs and to the Bureau of Indian Affairs and Federal, State, and local public welfare organizations for the relief of Indians and other needy persons; (2) to private welfare organizations for the assistance of needy persons within the United States; and, (3) to private welfare organizations for the assistance of needy persons outside the United States.

Restrictions on Sales Of CCC-Owned Commodities

The Agriculture Act of 1949 prohibits the Commodity Credit Corporation from selling any basic agricultural commodity or storable nonbasic commodity at less than 5 percent above the current support price of such commodity, plus reasonable carrying charges, subject to certain exceptions, as follows: (a) sales for new or byproduct uses; (b) sales of commodities which have substantially deteriorated in quality or when there is danger of loss or waste through deterioration or spoilage; (c) sales of peanuts and oilseeds for extraction of oil; (d) sales for feed or seed if such sales will not substantially impair any price-support program; sales to establish claims arising out of contract or against persons who have committed fraud, misrepresentation, or other wrongful acts with respect to the commodity; (f) sales for export; (g) sales of wool; and, (h) sales for other than primary use.

"Modernized" Parity

A "new" or "modernized" parity formula is provided which takes into consideration prices received by farmers during the most recent 10 calendar years or the most recent 10 marketing seasons, including wartime subsidy payments received by producers on milk, butterfat, beef cattle, sheep, and lambs under programs to maintain price ceilings established by the Office of Price Administration. With respect to prices paid, the formula makes allowances for wages farmers pay hired labor.

Parity prices as calculated with the new formula may not drop more than 5 percent per year below what they would be as computed with the old formula--prices thus scaled down being called "transitional parity prices."

Until 1954 support prices for basic commodities will be based on whichever of the two parity calculations results in the higher parity price. For nonbasic commodities, support prices will be based, beginning in 1950, on parity prices resulting from the new parity formula.

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ELECTRONIC SCALE REPORT AVAILABLE

The article "Electronic Scale Developed," carried in the August issue of Marketing Activities aroused an unusually broad response. Readers interested in more complete information may now obtain the full report "Improved Weighing Equipment for Livestock Marketing" by writing PMA's Information Branch, USDA, Washington 25, D. C.

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FROZEN APPLE JUICE RETAINS FRESH FRUIT QUALITIES

A method for making a superior type of apple juice that retains most of the color, aroma, and delicate flavor of the fresh juice has been developed at the Experiment Station at Geneva, New York. There, it has also been demonstrated that the new type juice can be preserved in excellent shape by freezing.

The new idea involved in the Station's apple juice is the addition of ascorbic acid powder, or vitamin C as it is known popularly, to the milled apples just before they are pressed. The powder may be dissolved in a little apple juice and sprayed on the apples, using one fourth ounce of the powder to a pint of juice for each bushel of apples.

The ascorbic acid delays changes in the apples that produce a browning of the fruit until the oxygen which causes the browning can be removed by deaeration and the enzymes can be made inactive by pasteurization, explains Dr. Carl S. Pederson, Station bacteriologist who developed the procedure.

Dairy.--The method of pricing milk delivered by dairy farmers in the Cleveland, Ohio, milk marketing area has been changed so as to (1) revise the pricing formulas used in determining the minimum prices to be paid dairy farmers for milk used in certain dairy products, and (2) change the classification of milk used in certain dairy products, USDA has announced. The changes were adopted in an amendment to the Federal order regulating the handling of milk in the area after more than two-thirds of the dairy farmers in the area voted in favor of such action. . . . October 28, USDA recommended that the minimum price assured to dairy farmers supplying the New York milk marketing area for Class I-A milk be maintained at the present level of $5.24 per hundredweight during November and December. Class I-A milk, under the terms of the Federal order regulating the handling of milk in the area, consists chiefly of fluid milk sold in the area. The recommendation was based on evidence received at a public hearing in Albany, N.Y., October 19 at which dairy-farmer organizations proposed increases of 44 cents to $1.08 per hundredweight in the minimum price--about 1 cent to 2 1/2 cents a quart. The organizations contended that higher production costs resulting from summer drought conditions in the area make an increase necessary. The Department concluded, however, that justification for an increase in the Class I-A price could not be found in view of (1) present and prospective supplies of fluid milk in relation to demand in the marketing area, and (2) the relatively wide margin between the present Class I-A price and the value of milk for other than fluid use.

Fruits and Vegetables.--USDA announced November 1 that it has rejected, on the basis of price, offerings of dried prunes by packers and processors in the States of Oregon and Washington under Announcement FV-157 of October 14, 1949, which was a part of the dried prune purchase program announced by the Department October 3, 1949. Packers and processors submitted offerings of 1,530 tons in the following price ranges: size 40/50, $0.1140 to $0.1250 per pound; size 50/60, $0.1090 to $0.0990 per pound. USDA said offers will again be considered in the near future on the same basis as announced by the Department October 14, when it was stated that acceptances by the Department would be conditioned upon payment by packers or processors to producers of a basis price of not less than 7 1/2 cents per pound. . . . Approval of a proposal to increase the limit on supplementary salable allotments for hops from the 80 percent (of the estimated final or total salable allotment) allowed previously, to 90 percent was announced by USDA November 1. This action has been taken by the Department upon the recommendation of the Control Board which administers the Federal marketing order and agreement regulating hops.

Livestock.--An ideal "meat-type" hog and a selection of pork cuts from such a hog were exhibited at the Grand National Livestock Exposition held at San Francisco from October 28 to November 6 by USDA. The purpose of the exhibit was to demonstrate the relationship between live

hog types and the proportion of preferred cuts in the finished meat product. Both the live hog and the meat cuts were from the Landrace-Poland China crossbred foundation stock being bred at Beltsville, Md., in the swine-improvement work of the Bureau of Animal Industry. USDA has described the ideal "meat-type" hog as one that at the final market weight of approximately 225 pounds should yield not less than 50 percent of its weight as preferred cuts. By preferred cuts is meant hams, loin, bacon, butt, and picnic shoulder. Also such a hog should have an average thickness of back fat of not less than 1 1/2 inches, to provide a reasonable assurance of satisfactory quality of the cuts, and no excess fat.

Potatoes.--On October 5, USDA ruled that growers of early crop potatoes in California will not be eligible for price support for their 1950 and subsequent crops. Department officials stated that this step has been taken because of the rejection by California growers in a referendum held June 20-30, 1949, of a proposed Federal marketing agreement and order which would have regulated the handling of California early crop potatoes. The California early potato producing area was the first in which potato growers in any area have rejected a marketing order and agreement program since the Agricultural Act of 1948 was passed. Of the approximately 1,160 growers eligible to vote on the marketing order in the California production area, only 283, or 28 percent, participated in the referendum. Of these only 41 percent favored the proposed marketing order.

Sugar.--USDA announced early in November that a public hearing will be held November 30, 1949, at South Building, USDA, in connection with the determination of 1950 sugar consumption requirements for continental United States and the establishment of marketing quotas, as authorized by the Sugar Act of 1948. In addition to the public hearing, the Department will receive for consideration briefs from any interested party on the matters to be discussed at the hearing and also on: (a) the determination of local consumption requirements for Hawaii and Puerto Rico and the establishment of quotas for these areas for 1950; (b) the determination and reallotment of the amount of sugar by which any domestic area, the Republic of the Philippines, or Cuba will be unable to market its quota in 1949. Persons desiring to submit briefs relating to any or all of these subjects shall submit them, in quadruplicate, addressed to the Director, Sugar Branch, Production and Marketing Administration, and received by him no later than December 12, 1949.

Tobacco.--A 1950 national marketing quota for Burley tobacco of 496,000,000 pounds was proclaimed by Secretary of Agriculture Charles F. Brannan on November 3, 1949. The proclamation, made in conformity with the Agricultural Adjustment Act of 1938, as amended, results in a reduction of about 15 percent in 1950 farm acreage allotments for farms having allotments above nine-tenths acre in 1949. Farms with allotments of nine-tenths acre or less cannot be reduced under existing legislation. As a result, the 1950 total Burley acreage allotted will be about 10 percent below the total acreage allotted in 1949. The 1949 marketing quota was 545,000,000 pounds. Since marketing quotas cannot be in effect unless they are approved by at least two-thirds of the Burley growers voting, a referendum will be held on November 26 to determine whether growers approve them for the 1950, 1951, and 1952 crop years.

ABOUT MARKETING

The following addresses, statements, and publications, issued recently, may be obtained upon request. To order, check on this page the publications desired, detach and mail to the Production and Marketing Administration, U. S. Department of Agriculture, Washington 25, D. C.

Addresses and Statements:

Testimony of Secretary of Agriculture Charles F. Brannan before the House Committee on Foreign Affairs, September 28, 1949. 12 pp. (Processed)

The City Dweller's Stake In a Sound Farm Program, a talk by Secretary of Agriculture Charles F. Brannan, at Chicago, September 30, 1949. 12 pp. (Processed)

Brannan Sees Marketing Aid In Production Payments, a summary of remarks by Secretary of Agriculture Charles F. Brannan at Atlantic City, New Jersey, September 28, 1949. 2 pp. (Processed)

The Cooperative Way, a talk by Under Secretary of Agriculture Albert J. Loveland, at Omaha, Nebraska, October 12, 1949. 11 pp. (Processed)

Keeping the Fourth Acre Productive, a talk by Under Secretary of Agriculture Albert J. Loveland, Kansas City, Mo., October 3, 1949. 9 pp. (Processed)

Price Supports for Perishables, a talk by Assistant Secretary of Agriculture Knox T. Hutchinson, at Chicago, October 10, 1949. 12 pp. (Processed)

A statement by Ralph S. Trigg, Administrator of PMA and President of CCC, before the House Banking and Currency Committee, October 5, 1949. 6 pp. (Processed)

Feed Trends, a summary of remarks by Frank K. Woolley at Annual Convention of Virginia State Feed Assn., at Richmond, Va., October 18, 1949. 2 pp. (Processed)

The Outlook for Prepackaged Produce, an address by Donald R. Stokes, Marketing Research Analyst, Marketing Research Branch, PMA, at New York, N.Y., October 25, 1949. 3 pp. (Processed)

Publications:

Improved Weighing Equipment For Livestock Marketing. (PMA) June 1949. 17 pp. (Processed)

The Potato Price Support Situation. (USDA) August 1949. 19 pp. (Processed)

Storage of Dry Shelled Corn in Farm-Type Bins. (Circular No. 826) (USDA) August 1949. 36 pp. (Printed)

National School Lunch Program. (PMA) PA-19. Revised June 1949. 4 pp. (Printed)

Cotton, Review of Commodity Credit Corporation Programs 1933-48, (PMA and Commodity Credit Corporation) July 1949. 23 pp. (Processed)

The Fertilizer Situation for 1949-50. (PMA) September 1949. 7 pp. (Processed)

United States Standards for Grades of Dates, Effective October 20, 1949. (PMA) 10 pp. (Processed)

Market News Service on Fruits and Vegetables, Marketing Florida Citrus Summary of 1948-49 Season. (PMA in cooperation with Florida State Marketing Bureau) October 3, 1949. 50 pp. (Processed)

Marketing South Carolina Peaches, Summary of 1949 Season. (PMA in cooperation with Clemson College Extension Service) October 6, 1949. 17 pp. (Processed)

Changes in Egg Quality During Marketing: North Central Regional Publication 15. (Published by Michigan State College, 13 North Central States and USDA cooperating). Special Bulletin 361, August 1949. 39 pp. (Printed)

Farm-Mortgage Loans and Their Distribution by Lender Groups, 1940-48 (BAE) August 1949. 63 pp. (Printed)

Agricultural Outlook Charts - 1950. (BAE) October 1949. 99 pp. (Printed)

Consumption of food in the United States, 1909-48. (BAE) MP 691. August 1949. 196 pp. (Processed)

Farm Consumption of Liquid Petroleum Fuels and Motor Oil. (BAE) FM-73. 1949. 21 pp. (Processed)

Citrus Fruits, Acreage, Production, Farm Disposition, Value and Utilization of Sales, Crop Seasons 1946-47 to 1948-49. (BAE October 1949. 11 pp. (Processed)

Wool Statistics, Including Mohair and Other Animal Fibers. (BAE) CS-37. 1949. 66 pp. (Printed)

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